

LISTING OF THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Cancelled).
2. (Currently amended) The synchronous motor system of claim [[1]] 4, further comprising:
 - a sensor connected in circuit with said normal field excitation supply unit and said synchronous motor so as to provide a signal representative of an electrical parameter, and wherein said control unit responds to said signal deviating by a predetermined amount from a reference value of said parameter to automatically change said field winding system over to said standby field excitation supply unit.
3. (Currently amended) The synchronous motor system of claim [[1]] 4, wherein said control unit controls a normal output switching mechanism to connect and disconnect said normal field excitation supply unit and a standby output switching mechanism to connect and disconnect said standby field excitation supply unit to and from said field winding system.
4. (Currently amended) ~~The synchronous motor system of claim 4~~ A synchronous motor system comprising:
 - at least one synchronous motor that includes a field winding system;
 - a normal field excitation supply unit and a standby field excitation supply unit;
 - and
 - a control unit that normally connects said normal field excitation supply unit in circuit with said field winding system and that in response to a failure of said normal field excitation supply unit automatically changes over said field winding system from said normal field excitation supply unit to said standby field excitation supply unit, wherein said synchronous motor is one of a plurality of synchronous motors that each have a field winding system, wherein said normal field excitation supply unit is one of a plurality

of normal field excitation supply units, each of which is associated with a different one of said synchronous motors, wherein said control unit responds to a failure of any one of said normal field excitation supply units to change the field winding system of the associated synchronous motor over to the standby field excitation supply unit.

5-6. (Cancelled).

7. (Currently amended) The method of claim [[6]] 8, wherein said failure corresponds to a predetermined deviation from a reference value of a signal that is sensed from said synchronous motor field winding system.

8. (Currently amended) ~~The method of claim 6~~ A method for recovery from a loss of a normal field excitation supply unit of a synchronous motor comprising:
normally connecting said normal field excitation supply unit in circuit with a field winding system of said synchronous motor;
detecting a failure of said normal field excitation supply unit; and
in response to said detected failure, automatically changing over said field winding system from said field normal excitation supply unit to a standby field excitation supply unit, wherein the steps of connecting, detecting and automatically changing over are performed for each of a plurality of synchronous motors, and wherein said standby excitation supply field unit is shared by all of said synchronous motors.

9. (New) A synchronous motor system comprising:
- a first synchronous motor including a first field winding system and a first field excitation supply unit, said first field excitation supply unit being in selective electrical communication with said first field winding system;
 - a second synchronous motor including a second field winding system and a second field excitation supply unit, said second field excitation supply unit being in selective electrical communication with said second field winding system; and
 - a standby field excitation supply unit being in selective electrical communication with said first field winding system or said second field winding system.
10. (New) The synchronous motor system of claim 9, further comprising a control unit that normally connects said first field excitation supply unit in circuit with said first field winding system and said second field excitation supply unit in circuit with said second field winding system.
11. (New) The synchronous motor system of claim 10, wherein said control unit, in response to a failure of said first field excitation supply unit automatically changes over said first field winding system from said first field excitation supply unit to said standby field excitation supply unit and, in response to a failure of said second field excitation supply unit automatically changes over said second field winding system from said second field excitation supply unit to said standby field excitation supply unit.
12. (New) The synchronous motor system of claim 11, wherein said control unit changes over said first field winding system from said first field excitation supply unit to said standby field excitation supply unit when a first parameter of said first field excitation supply unit exceeds a reference value and changes over said second field winding system from said second field excitation supply unit to said standby field excitation supply unit when a second parameter of said second field excitation supply unit exceeds said reference value.

13. (New) The synchronous motor system of claim 12, wherein said first parameter comprises a field load current of said first field excitation supply unit and said second parameter comprises a field load current of said second field excitation supply unit.

14. (New) The synchronous motor system of claim 13, wherein said reference value comprises a percentage of a desired field current.

15. (New) The synchronous motor system of claim 13, wherein said reference value comprises an absolute value of a desired field current.

16. (New) A synchronous motor system comprising:
a first synchronous motor having a field winding system;
a normal field excitation supply unit configured to supply a normal field excitation voltage, said normal field excitation voltage being sufficient to operate said first synchronous motor synchronously;
a standby field excitation supply unit configured to supply a standby field excitation voltage, said standby field excitation voltage being sufficient to operate said first synchronous motor synchronously; and
at least one switching mechanism configured to apply either said normal field excitation supply unit or said standby field excitation supply unit to said field winding system.

17. (New) The synchronous motor system of claim 16, further comprising a control unit that normally operates said at least one switching mechanism to apply said normal field excitation voltage to said field winding system and that, in response to said normal field excitation voltage deviating by a predetermined amount from a reference value, automatically operates said at least one switching mechanism to apply said standby field excitation voltage to said field winding system.